

CLAIMS

- 1.- A folding ramp for vehicle access, intended for being assembled behind a door (1) within the frame thereof and made up of two rectangular frames (5 and 6) linked at one of their shorter sides by means of a hinge (7) and with the door frame
5 through the free smaller free end of one of the frames (5) by means of a hinge (8), the frames of which may swing between a folded position in which they remain folded against one another and the frame (2) of the door opening, and a deployed position, in which they are aligned, each frame being made up of two longitudinal beams (15-16) and an intermediate floor and both frames being linked to the frame of the door
10 opening by means of a suspension cable (9) connected to a collecting drum (10) with a brake assembled on said frame, characterised in that the intermediate floor of each frame includes a moving section (17), close to the hinge pin (7) of both frames, and at least one fixed section (18), the moving section of which is limited between the longitudinal beams and can shift along them between two end positions, a withdrawn
15 position, in which it remains placed on the fixed section (18), and another extracted position, in which it remains extended and coplanar with said fixed portion (18), in order to complete the floor surface, the moving section (17) of the two frames, on its longitudinal edges, and the longitudinal beams (15-16) of said frames having means for guiding the shifting of the moving sections (17), which sections are connected to
20 the suspension cable of the frames through points adjacent to the edge closest to the hinge pin (7) of the frames; the two moving sections (17) hanging from the suspension cables (9) when the frames (5 and 6) are in their folded position, shifting due to their own weight towards the extracted position as the suspension cable (9) of the frames are progressively let out during the frame deployment operation, whereas when said
25 cables (9) are pulled at during the folding operation, the moving sections (17) of the floor shift towards the withdrawn position, and in that it includes means for controlling the deployment of the frames and for locking said frames in their folded position, the locking means being releasable when the closing door (1) reaches a position close to that of maximum opening.
- 30 2.- A ramp according to claim 1, characterised in that the means for guiding the shifting of the moving sections (17) of the floor of the frames (5 and 6) along said frames consist in runners or bolts (22-23) projecting from the longitudinal edges of said sections (17) and introduced in guides (20-21) in the longitudinal beams of the frames by their opposing edges, along the same.
- 35 3.- A ramp according to claim 2, characterised in that projecting from each one

of the longitudinal edges of the moving section (17) of the floor of each frame (5 and 6) are two runners (22-23), located in opposing positions on the two edges and each one close to each transverse edge of said moving section (17), the guides of the longitudinal beams being made up by two longitudinal grooves (20-21) aligned on each

5 longitudinal beam, which run on the fixed section of the floor and are of a length equal to the shifting of the moving sections of said floor, which grooves include, from the end closest to the hinge pin between both frames, a portion tilted towards the rear edge of the longitudinal beams, guiding the moving section of the floor until placing it in a coplanar position with the fixed section or sections thereof.

10 4.- A ramp according to claim 1, characterised in that each frame includes a moving section (17) of the floor limited between two fixed sections (18 and 19) of different lengths, each one of the mentioned sections being made up of a rigid sheet.

15 5.- A ramp according to claim 1, characterised in that the means for controlling frame deployment consist in a pneumatic or hydraulic spring (11) with adjustable tension, linking the frame (5) adjacent to the vehicle with the frame (2) of the door opening.

20 6.- A ramp according to claim 1, characterised in that the frame locking means for locking them in their folded position consist in a latch (37) assembled on the upper part of the frame (2) of the door opening, which locks the frames (5 and 6) in their extracted position, folded upon the door frame, which latch has an associated push-rod (40) and lever (39) linked to the closing door by means of a traction cable (36) causing the retraction of the latch (37) when said door (1) reaches a position close to that of the maximum opening, after which the latch is released, said latch and push-rod and lever being driven towards the locking and rest position by means of respective springs
25 (42-43).